

Gunter, Jason

From: Seabourne, Rocky <rseabourne@doerun.com>
Sent: Thursday, November 19, 2015 9:05 AM
To: 'brandon.wiles@dnr.mo.gov'; Gunter, Jason; 'Kevin Lombardozzi' (kevinl@VALHI.NET); Matt Whitwell (mwhitwell@parkhillsmo.net); Montgomery, Michael; Neaville, Chris; 'Norman Lucas (cityhall@i1.net)'; Ty Morris; Yingling, Mark
Subject: Emailing: National Monthly Progress Report- October
Attachments: National Monthly Progress Report- October.pdf; 2015-10-07 NAT UAO Pace Lab Report.pdf

Your message is ready to be sent with the following file or link attachments:

National Monthly Progress Report- October

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0U02 11/19/15
Superfund



Rocky Seabourne
General Supervisor Land & Remediation
rseabourne@doerun.com

November 12, 2015

Mr. Jason Gunter Remedial Project Manager U.S. Environmental Protection Agency
Region 7 – Superfund Branch 11201 Renner Blvd.
Lenexa, KS 66219

RE: National Mine Tailings Site Progress Report

Dear Mr. Gunter:

As required by Article VI, Section 51 of the Unilateral Administrative Order (UAO) (Docket No.CERCLA-07-2006-0231) for the referenced project and on behalf of The Doe Run Company and NL Industries, Inc., the progress report for the period of October 1, 2015 through October 31, 2015 is enclosed. If you have any questions or comments, please feel free to contact me at 573-244-8136.

Sincerely,

A handwritten signature in black ink that reads "Rocky Seabourne". The signature is written in a cursive, flowing style.

Rocky Seabourne

General Supervisor Land & Remediation
c:Mark Yingling – TDRC (electronic only)
Chris Neaville – TDRC (electronic only)
Michael Montgomery – TDRC (electronic only)
Kevin Lombardozzi – NL Industries, Inc.
Matt Whitwell – City of Park Hills
Norm Lucas – Park Hills – Leadington Chamber of Commerce
Brandon Wiles – MDNR HWP
Ty Morris – Barr Engineering

National Mine Tailings Site
Park Hills, Missouri
Removal Action - Monthly Progress Report
Period: October 1, 2015 – October 31, 2015

1. Actions Performed and Problems Encountered This Period:
 - a. Work continued on the development of the Post-Removal Site Control Plan for the site.
 - b. On November 2014, 2014 The Doe Run Company submitted a letter to EPA requesting that they be allowed to stop air monitoring activities at this site. EPA approved this request on May 27, 2015. No further air monitoring or reporting will take place for the National Mine Tailings Site.
 - c. Given the nature of the work remaining at the site, The Doe Run Company would like to request a reduction in the frequency of the progress reports to quarterly. The next progress report that would be submitted for this site would be for July, August, and September.
 - d. Monthly water samples were taken during the removal action activities. These samples have been continued since the completion of the removal action activities. The analytical results, which have been included in the progress reports, have shown little variation. As a result Doe Run would like to request a reduction in the frequency of the sampling to quarterly.
2. Analytical Data and Results Received This Period:
 - a. During this period, water samples were collected at the sampling locations identified in Appendix C of the Removal Action Work Plan where water was present. Copies of the analytical results from the last sampling event are included with this progress report.
3. Developments Anticipated and Work Schedule for Next Period:
 - a. Complete the water sampling activities.
 - b. Continue developing the Removal Action Report and the record drawings.
 - c. Finalize and submit the Post Removal Site Control Plan for the site.
4. Issues or Problems Encountered and the Resolution:
 - a. None.

October 15, 2015

Amy Sanders
The Doe Run Company
P. O. Box 500
Viburnum, MO 65566

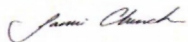
RE: Project: NATIONAL UAO (NATIONAL)
Pace Project No.: 60204549

Dear Amy Sanders:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jamie Church
jamie.church@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

(913)599-5665

CERTIFICATIONS

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 15-016-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407

Utah Certification #: KS00021

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60204549001	38090 / NAT EAST	Water	10/07/15 10:47	10/08/15 08:50

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SAMPLE ANALYTE COUNT

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60204549001	38090 / NAT EAST	EPA 200.7	TDS	6	PASI-K
		EPA 200.7	JGP	3	PASI-K
		SM 2540C	LDB	1	PASI-K
		SM 2540D	CRS	1	PASI-K
		SM 2540F	CRS	1	PASI-K
		SM 4500-H+B	JMC1	1	PASI-K
		EPA 300.0	AJM	1	PASI-K
		SM 5310C	ESM	1	PASI-K

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ANALYTICAL RESULTS

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

Sample: 38090 / NAT EAST Lab ID: 60204549001 Collected: 10/07/15 10:47 Received: 10/08/15 08:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	<0.56	ug/L	5.0	0.56	1	10/09/15 10:00	10/12/15 15:45	7440-43-9	
Calcium	98000	ug/L	100	5.2	1	10/09/15 10:00	10/12/15 15:45	7440-70-2	
Lead	3.0J	ug/L	5.0	1.9	1	10/09/15 10:00	10/12/15 15:45	7439-92-1	
Magnesium	51700	ug/L	50.0	13.3	1	10/09/15 10:00	10/12/15 15:45	7439-95-4	
Total Hardness by 2340B	457000	ug/L	500		1	10/09/15 10:00	10/12/15 15:45		
Zinc	121	ug/L	50.0	2.6	1	10/09/15 10:00	10/12/15 15:45	7440-66-6	
200.7 Metals, Dissolved (LF)		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium, Dissolved	0.64J	ug/L	5.0	0.56	1	10/13/15 14:40	10/14/15 15:30	7440-43-9	
Lead, Dissolved	6.5	ug/L	5.0	1.9	1	10/13/15 14:40	10/14/15 15:30	7439-92-1	D9
Zinc, Dissolved	129	ug/L	50.0	2.6	1	10/13/15 14:40	10/14/15 15:30	7440-66-6	D9
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	595	mg/L	5.0	5.0	1		10/09/15 09:55		
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		10/09/15 08:34		
2540F Total Settleable Solids		Analytical Method: SM 2540F							
Total Settleable Solids	<0.20	mL/L/hr	0.20	0.20	1		10/09/15 08:05		
4500H+ pH, Electrometric		Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	8.2	Std. Units	0.10	0.10	1		10/13/15 14:30		H6
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	194	mg/L	20.0	4.7	20		10/09/15 18:08	14808-79-8	
5310C TOC		Analytical Method: SM 5310C							
Total Organic Carbon	1.1	mg/L	1.0	0.46	1		10/13/15 13:05	7440-44-0	

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QUALITY CONTROL DATA

Project: NATIONAL UAO (NATIONAL)
Pace Project No.: 60204549

QC Batch: MPRP/33463 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60204549001

METHOD BLANK: 1647358 Matrix: Water
Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	ug/L	<0.56	5.0	10/12/15 15:33	
Calcium	ug/L	9.5J	100	10/12/15 15:33	
Lead	ug/L	<1.9	5.0	10/12/15 15:33	
Magnesium	ug/L	<13.3	50.0	10/12/15 15:33	
Total Hardness by 2340B	ug/L	23.7J	500	10/12/15 15:33	
Zinc	ug/L	5.0J	50.0	10/12/15 15:33	

LABORATORY CONTROL SAMPLE: 1647360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	1000	968	97	85-115	
Calcium	ug/L	10000	9900	99	85-115	
Lead	ug/L	1000	990	99	85-115	
Magnesium	ug/L	10000	9500	95	85-115	
Total Hardness by 2340B	ug/L		63800			
Zinc	ug/L	1000	961	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1647361 1647363

Parameter	Units	60204549001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Cadmium	ug/L	<0.56	1000	1000	988	1000	99	100	70-130	1	20
Calcium	ug/L	98000	10000	10000	109000	108000	112	97	70-130	1	20
Lead	ug/L	3.0J	1000	1000	984	1000	98	100	70-130	2	20
Magnesium	ug/L	51700	10000	10000	62300	61600	107	100	70-130	1	20
Total Hardness by 2340B	ug/L	457000			529000	523000				1	
Zinc	ug/L	121	1000	1000	1060	1080	94	96	70-130	2	20

MATRIX SPIKE SAMPLE: 1647364

Parameter	Units	60204551002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	<0.56	1000	1000	100	70-130	
Calcium	ug/L	51800	10000	61800	101	70-130	
Lead	ug/L	<1.9	1000	1010	101	70-130	
Magnesium	ug/L	31700	10000	41800	101	70-130	
Total Hardness by 2340B	ug/L	260000		326000			
Zinc	ug/L	7.0J	1000	972	96	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

QC Batch: MPRP/33508

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 Metals, Dissolved

Associated Lab Samples: 60204549001

METHOD BLANK: 1649804

Matrix: Water

Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium, Dissolved	ug/L	<0.56	5.0	10/14/15 15:19	
Lead, Dissolved	ug/L	<1.9	5.0	10/14/15 15:19	
Zinc, Dissolved	ug/L	<2.6	50.0	10/14/15 15:19	

LABORATORY CONTROL SAMPLE: 1649805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	ug/L	1000	982	98	85-115	
Lead, Dissolved	ug/L	1000	1030	103	85-115	
Zinc, Dissolved	ug/L	1000	996	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1649806 1649807

Parameter	Units	60204550001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium, Dissolved	ug/L	8.8	1000	1000	1030	1030	102	102	70-130	0	20	
Lead, Dissolved	ug/L	10.8	1000	1000	1030	1030	102	102	70-130	0	20	
Zinc, Dissolved	ug/L	6740	1000	1000	7690	7560	95	82	70-130	2	20	

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QUALITY CONTROL DATA

Project: NATIONAL UAO (NATIONAL)
Pace Project No.: 60204549

QC Batch:	WET/57684	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	60204549001		

METHOD BLANK: 1647321 Matrix: Water
Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<5.0	5.0	10/09/15 09:39	

LABORATORY CONTROL SAMPLE: 1647322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	969	97	80-120	

SAMPLE DUPLICATE: 1647323

Parameter	Units	60204614001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	4500	4700	4	10	

SAMPLE DUPLICATE: 1647324

Parameter	Units	60204614013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1620	1580	2	10	

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**QUALITY CONTROL DATA**

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

QC Batch: WET/57679

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 60204549001

METHOD BLANK: 1647151

Matrix: Water

Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<5.0	5.0	10/09/15 08:27	

SAMPLE DUPLICATE: 1647152

Parameter	Units	60204581001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	25.0	26.0	4	10	

SAMPLE DUPLICATE: 1647153

Parameter	Units	60204518001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	<5.0	<5.0		10	

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(913)599-5665

QUALITY CONTROL DATA

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

QC Batch: WET/57740

Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B

Analysis Description: 4500H+B pH

Associated Lab Samples: 60204549001

SAMPLE DUPLICATE: 1649495

Parameter	Units	60204541009 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	5	H6

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QUALITY CONTROL DATA

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

QC Batch: WETA/36282

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Associated Lab Samples: 60204549001

METHOD BLANK: 1647186

Matrix: Water

Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.24	1.0	10/09/15 09:55	

METHOD BLANK: 1648043

Matrix: Water

Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.24	1.0	10/10/15 15:33	

LABORATORY CONTROL SAMPLE: 1647187

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.8	95	90-110	

LABORATORY CONTROL SAMPLE: 1648044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.8	95	90-110	

MATRIX SPIKE SAMPLE: 1647188

Parameter	Units	60204521001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	ND	500	525	92	80-120	

MATRIX SPIKE SAMPLE: 1647189

Parameter	Units	60204550003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	759	250	970	84	80-120	

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QUALITY CONTROL DATA

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

QC Batch: WETA/36299

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Associated Lab Samples: 60204549001

METHOD BLANK: 1647817

Matrix: Water

Associated Lab Samples: 60204549001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.46	1.0	10/13/15 12:26	

LABORATORY CONTROL SAMPLE: 1647818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.1	101	80-120	

MATRIX SPIKE SAMPLE: 1647819

Parameter	Units	60204425003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.7	5	5.0	66	80-120	M1

SAMPLE DUPLICATE: 1647820

Parameter	Units	60204425008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	0.62J	0.56J		25	

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QUALIFIERS

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

D9 Dissolved result is greater than the total. Data is within laboratory control limits.

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NATIONAL UAO (NATIONAL)

Pace Project No.: 60204549

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60204549001	38090 / NAT EAST	EPA 200.7	MPRP/33463	EPA 200.7	ICP/24658
60204549001	38090 / NAT EAST	EPA 200.7	MPRP/33508	EPA 200.7	ICP/24685
60204549001	38090 / NAT EAST	SM 2540C	WET/57684		
60204549001	38090 / NAT EAST	SM 2540D	WET/57679		
60204549001	38090 / NAT EAST	SM 2540F	WET/57678		
60204549001	38090 / NAT EAST	SM 4500-H+B	WET/57740		
60204549001	38090 / NAT EAST	EPA 300.0	WETA/36282		
60204549001	38090 / NAT EAST	SM 5310C	WETA/36299		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 60204549



60204549

Client Name: Doe Run

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 7746 8134 8460

Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-239 1 T-262

Type of Ice: Yes Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 1.3

Date and initials of person examining contents: SW 10/8/15 1040

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>Soil-Sol. / pH</u>
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses	Matrix: <u>water</u>	13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed: <u>SW</u> Lot # of added preservative:
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank lot # (if purchased):	<u>inf</u>	15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
		16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:
Additional labels attached to 5035A vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	18.

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

10/8/15

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: The Doe Run Company
Address: PO Box 500
Email To: asanders@doerun.com
Phone: (573) 689-4535 Fax: (573) 244-8179
Requested Due Date/TAT: 5 To 7 Days

Section B

Required Project Information:

Report To: Amy Sanders
Copy To:
Purchase Order No.:
Project Name: National UAO (National)
Project Number:

Section C

Invoice Information:

Attention: Amy Sanders
Company Name: The Doe Run Company
Address: PO Box 500, Viburnum, MO 6556
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER
☐ UST ☐ RCRA

Site Location: MO
STATE:

Page: 1 of 1

COC#: 2763

60204544

Section C Required Sample Information		Valid Matrix Codes		COLLECTED DATE/TIME				Bottles / Preservatives		Requested Analysis Filtered (Y/N)																SEMO Lab Project No./ Lab I.D.									
ITEM #	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX	CODE	COMPOSITE START		COMPOSITE END / GRAB		Total # OF CONTAINERS	250 mL Unpreserved	500 mL Unpreserved	1 L Unpreserved	250 mL Nitric	250 mL Amber Glass H ₂ SO ₄	250 mL Plastic H ₂ SO ₄	1000 mL Amber HCL	250 mL ZnAc/NaOH	500 mL Amber Glass H ₂ SO ₄	*See Additional Comments Below Analysis Test ↓																	
		WATER	WT	DATE (mm/dd/yy)	TIME (Military)	DATE (mm/dd/yy)	TIME (Military)											DATE (mm/dd/yy)	TIME (Military)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
1	38090	W	G					10/07/15	1047	5	1	1	1	1	1				CD-D, PB-D, ZN-D, HARD, PH, SO ₄ , SS, TDS, TOC, TSS	Nat East															
2																			CD-T, PB-T, ZN-T																
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME (Military)	ACCEPTED BY / AFFILIATION	DATE	TIME (Military)	SAMPLE CONDITIONS			
2007 Total Recoverable and Dissolved Metals	L Hopkins DRC	10/7/15	1230	[Signature]	10/8/15	830	1-3	4	1	4

SAMPLER NAME AND SIGNATURE		Temp in °C	pH in SU	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)
PRINT Name of SAMPLER:	Larry Hopkins				
SIGNATURE of SAMPLER:	[Signature]	DATE Signed (MM/DD/YY):	10/7/15		